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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,711	09/01/2005	Gilles Orange	1022702-000262	2975
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EXAMINER				
ABU ALL SHUANGYI				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
01/05/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

### Office Action Summary

**Application No.**

10/520,711

**Applicant(s)**

ORANGE ET AL.

**Examiner**

SHUANGYI ABU ALI

**Art Unit**

1793

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-60 is/are pending in the application.
- 4a) Of the above claim(s) 56-60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of claims 31-55 in the reply filed on 10/31/2008 is acknowledged. The traversal is on the ground(s) that it is not a burden for the Examiner to examine all the claims. This is not found persuasive because the restriction is made based on PCT practice rule and thus any arguments based on a restriction for US practice are moot. Applicant presents no clear arguments as to why a restriction under the PCT rule is improper.

Finally and assuming further arguendo about the "serious burden" aspect, it is to be noted that all the groups are classified in different area (i.e. a method of making an article, hydraulic binder composition and an article, as claimed in each individual group requires a separate search in an individual art area) within the office thus a serious burden is apparent.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33, 49-50 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 49-50 and 52 are all depended from claim 46, which disclose a monomer has a formula of (I). The compounds disclosed by the claims 49 (except acrylic and methacrylic), claims 50 and 52 have formulas different from formula (I).

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are how the article is manufactured (steps involved).

Claim 33 is indefinite because it depends on claims 1 or 2.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 31 and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,067,758 to Sommer, in view of "Rheological and

physicomechanical properties of heavy concrete with additions of a melt of carboxylic acid " to Nikiforov.

Regarding claims 31 and 37-41, Sommer discloses a method of making an article, which has several coatings. The coating has a thickness overlapping with the thickness disclosed by the instant application. One of the coatings is made by hydraulic binder composition (abstract, col. 2, lines 19-68).

But they are silent that the hydraulic binder composition comprises an organic compound as applicants set forth in claim 31.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use organic compound such as carboxylic acid in the hydraulic binder, motivated by the fact that Nikiforov, also drawn to hydraulic binder composition, disclose that the hydraulic binder containing carboxylic acid (such as succinic, glutaric and adipic acid) has improved rheological property and increased strength ( abstract).

Claims 31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,067,758 to Sommer , in view of U. S. patent No. 5,792,252 to Sprouts.

Regarding claim 31, Sommer discloses a method of making an article, which has several coatings. The coating has a thickness overlapping with the thickness disclosed by the instant application. One of the coatings is made by hydraulic binder composition (abstract, col. 2, lines 19-68).

But they are silent that the hydraulic binder composition comprises an organic compound as applicants set forth in claim 31.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use organic compound such as carboxylic acid in an additive composition for hydraulic binder, motivated by the fact that Sprouts, also drawn to hydraulic binder composition, disclose that the hydraulic binder containing additive composition comprising carboxylic acid has improved workability (abstract).

Regarding claim 34, the amount of the additive composition is in a range of 1-15% based on the weight of the hydraulic binder (col. 2, line 5-line 2).

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer and U. S. patent No. 5,792,252 to Sprouts, further in view of U. S. Patent No. 4,090,882 to Rauschenfels.

Regarding claim 36, combined teaching of Sommer and Sprouts et al. disclose a method of making an article set forth above, but they are silent that the composition comprising fiber.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use glass fiber in the hydraulic binder, motivated by the fact that Rauschenfels, also drawn to hydraulic binder, disclose that hydraulic binder can be structure reinforced by glass fiber (Abstract). In addition, the use of fibers is obvious in

order to increase the strength of the resulting product. Rauschenfels disclose that the amount of glass fiber is about 4% (col. 3, line 65-68).

Claims 32, 35, 42-44 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer and "Rheological and physicommechanical properties of heavy concrete with additions of a melt of carboxylic acid " to Nikiforov, further in view of U. S. patent Publication No. 2002/0077390 to Gonnon et al.

Regarding claims 32, 42-44, combined teaching of Sommer and Nikiforov disclose a method of making an article comprising hydraulic binder and organic compound set forth above. But they are silent that the composition comprises latex as applicant set forth in claims 32 and 42-44.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use latex in the hydraulic binder, motivated by the fact that Gonnon et al., also drawn to hydraulic binder, disclose that polymers ( latex) made from monomer such as styrene and vinyl acetate can be used with hydraulic binders to improve the mechanical strength of the composition. (Abstract, claims 27 and 28).

Regarding claim 35, Gonnon et al. disclose that the polymer amount in the composition is adjusted according to the desired compactness ([0117] and examples)

Regarding claim 55, Gonnon et al. disclose that hydraulic binder is calcium sulfate ([0027]).

Claims 45-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer and "Rheological and physicommechanical properties of heavy concrete with additions of a melt of carboxylic acid " to Nikiforov, further in view of U. S. Patent No. 6,461,425 to Brown et al.

Regarding claims 45-49, and 51, combined teaching of Sommer and Nikiforov disclose a method of making an article comprising hydraulic binder and organic compound set forth above. But they are silent that the composition comprises a water-soluble amphiphilic copolymer as applicant set forth in claim 45.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use amphiphilic copolymer in the hydraulic binder, motivated by the fact that Brown et al., also drawn to hydraulic binder, disclose that copolymers made from monomer such as ethylene and acrylic acid can be used with hydraulic binders to obtain beneficial effect (Abstract, claim 1, col. 3, line 65-col. 5, line 20; col. 4, lines 54-67).

Regarding claims 50 and 52, Brown et al. disclose that maleic anhydride can be used as monomer. (col. 3, line 65-col. 5, line 20)

Regarding claim 53, the amount of the copolymer used in the composition is about 0.005-0.12% of the hydraulic binder. (col. 6, line 40-44).

Claims 33 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No. 4,067,758 to Sommer and "Rheological and physicommechanical properties of heavy concrete with additions of a melt of



carboxylic acid " to Nikiforov, further in view of U. S. Patent No. 4,090,882 to Rauschenfels.

Regarding claims 33 and 54, combined teaching of Sommer and Nikiforov disclose a method of making an article comprising hydraulic binder and organic compound set forth above. But they are silent that the composition comprises fiber, such as glass fiber, as applicant set forth in claims 33 and 54.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use glass fiber in the hydraulic binder, motivated by the fact that Rauschenfels, also drawn to hydraulic binder, disclose that hydraulic binder can be structure reinforced by glass fiber (Abstract).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUANGYI ABU ALI whose telephone number is (571)272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael A Marcheschi/  
Primary Examiner, Art Unit 1793

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